

Application No. 10/070,298
Paper Dated: December 8, 2004
In Reply to USPTO Correspondence of March 26, 2004
Attorney Docket No. 4083-020383

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 1, 2, and 7, and add new claims 8-18 as follows:

Listing of Claims

1. (Currently Amended) A pair of range binoculars which comprises:

a first observation optical system comprising a first optical member for forming an erecting image, a first objective optical system that together with said first optical member determines a first objective optical axis, and a first ocular optical system that determines together with said first optical member a first ocular optical axis;

a second observation optical system comprising a second optical member for forming an erecting image, said second member being placed parallel with said first optical member, a second objective optical system that determines together with said second optical member a second objective optical axis, and a second ocular optical system that determines together with said second optical member a second ocular optical axis;

a main case accommodating said first observation optical system, first objective optical system, and first ocular optical system, and said second objective optical system;

an attached case accommodating said second ocular optical system and said second optical member, said attached case being placed on said main case so that said attached case turns round said second objective optical axis;

laser range-finding means accommodated in said main case; and

measured distance displaying means comprising LCD means for displaying a distance measured by said laser range-finding means, said LCD means being placed at a part off a light path formed by said first observation optical system, and a displaying optical system for projecting the distance displayed by said LCD means on a reticle so that the distance is shown at a rim of the visual field.

2. (Currently Amended) The range binoculars as claimed in claim 1, wherein said displaying optical system comprises ~~are~~ a relay lens and a reflecting mirror.

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3. (Original) The range binoculars as claimed in claim 1, wherein said laser range-finding means comprises a laser emitter for emitting a laser beam to an object, a laser beam receiver for receiving the laser beam reflected by the object, and range-finding means for measuring the distance between the binoculars and said object based on the length of time from the emission of said laser beam to the receiving thereof.

4. (Original) The range binoculars as claimed in claim 3, wherein said laser emitter comprises a laser diode emitting an infrared ray, and a plate beam splitter or prism beam splitter placed on the second objective optical axis, said splitter reflecting the infrared ray emitted by the laser diode, whereby the infrared ray is sent to said object through the second objective optical system, and said splitter transmitting visible light incoming through the second objective optical system.

5. (Original) The range binoculars as claimed in claim 1, wherein said first optical member is a beam splitter that separates infrared ray from visible light and takes the separated infrared ray out of the light path of said first observation optical system.

6. (Original) The range binoculars as claimed in claim 5, wherein said laser beam receiver receives an infrared ray that was emitted by the laser emitter to an object, reflected by said object, sent into the light path of said first observation optical system, and separated by said first optical member.

7. (Currently Amended) The range binoculars as claimed in claim ~~6~~⁴, wherein said laser diode and said laser beam receiver are placed at a part off a light path formed by said first observation optical system and in the opposite side of the second observation optical system.

8. (New) The range binoculars as claimed in claim 7, wherein said laser diode is placed in the vicinity of a wall of said main case by the side of said first observation optical system, whereby said laser diode emits said infrared ray toward said plate beam splitter or prism beam splitter perpendicularly to the optical axes of said first and second observation optical systems.

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9. (New) The range binoculars as claimed in claim 4, wherein said plate beam splitter or prism beam splitter is placed between said second objective optical system and said second optical member.

10. (New) The range binoculars as claimed in claim 8, wherein said plate beam splitter or prism beam splitter is placed between said second objective optical system and said second optical member.

11. (New) The range binoculars as claimed in claim 5, wherein said beam splitter transmits infrared ray and reflects visible light.

12. (New) The range binoculars as claimed in claim 6, wherein said beam splitter transmits infrared ray and reflects visible light.

13. (New) The range binoculars as claimed in claim 2, wherein said reflecting mirror is placed at around a rim of the visual field so that said reflecting mirror does not substantially obstruct said light path.

14. (New) The range binoculars as claimed in claim 2, wherein said measured distance displaying means is placed in close proximity to said reticle and above the optical axis of the first ocular optical system.

15. (New) The range binoculars as claimed in claim 13, wherein said measured distance displaying means is placed in close proximity to said reticle and above the optical axis of the first ocular optical system.

16. (New) The range binoculars as claimed in claim 14, wherein said LCD means is positioned so that the displaying face of said LCD means is vertical to the focusing face of said reticle.

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17. (New) The range binoculars as claimed in claim 15, wherein said LCD means is positioned so that the displaying face of said LCD means is vertical to the focusing face of said reticle.

18. (New) The range binoculars as claimed in claim 17, wherein said displaying optical system consists of one relay lens and one reflecting mirror.